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ABSTRACT
              This paper presents a study of the organization of 60
junior school classrooms in Great Britain. The study was conducted to
examine changes occurring as a result of the move towards
comprehensive secondary education in Britain and as a result of the
recommendations of the Plowden Committee for more individualized
instruction at the primary level. In order to survey possible
changes, classroom structure and teacher and student behaviors were
observed in 60 junior classrooms. Although these observations
indicated a change toward more flexible small group seating patterns,
a concomitant change in the structure of the curriculum was not
found. A traditional curriculum was still emphasized in most
classrooms. In addition, the observations of the teachers indicated a
high level of interaction with certain children, rather than with the
whole group, small groups, or with each child in the class. Many of
the teacher-student interactions involved task supervision.
Within-group teaching and pupil-pupil interactions were not
emphasized. Although the more traditional schools in the present
sample had the highest achievement levels, the paper emphasizes the
importance of considering a variety of variables before interpreting
this result. The results of the study suggest the need for a greater
emphasis on the internal organization of the classrooms at the junior
level. (BD)

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SOME ASPECTS OF INTERNAL ORGANISATION
OF PRIMARY EDUCATION IN BRITAIN

by

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SUMMARY

The move towards comprehensive education at secondary
level in Britain has increased the freedom of action of
teachers in the primary school, particularly in the junior
age range.

The work described in this paper examines the
organisation, and the activities taking place in 60 junior
school classrooms. Although the teacher sustains a high
level of interaction with the pupils it is mainly on an
individual basis and is not shared out equally among the
class. Group work as an alternative strategy is seldom
used. The paper considers the implications of these
findings and concludes that "informal" methods have not
so much failed as have still to be tried.

1.   Background to recent practice in the primary school

It has too readily been assumed that the ending of
selection at eleven and the move to a comprehensive system
of secondary education in Britain has led to a total
transformation of primary schooling (1), now that teachers
have been freed from the demands made on them by the 11+
examination. While it is true that in most primary classes
today the pupils no longer sit in rows of desks and chant
their multiplication tables endlessly, when not taking part
in a spelling quiz, the so called "primary revolution" has
not proceeded to anything like the same extent as some
critics of our present schooling would have us believe
(Boyson and Cox 1975). Barker Lunn (1970) found that 5l.
of teachers in her sample were still working in streamed
schools but that an even greater proportion, (C9.) retained
positive attitudes to selection by ability. There are,
however, probably wide variations in practice from area to
area. For example; Bennett's (1976) study of teachers in
Lancashire and Cumbria found that around 60. estimated that
they spent an "above average amount of time talking to the
whole class" whereas in a study of 900 teachers in
Nottinghamshire by Bassey (1977) only 24.3 of junior school
teachers spent more than half their time on class work.
The ORACLE study (2) shows that the average amount of time
that teachers spend on class teaching is only around 15%
whereas from Bassey's data the figure would be closer to 50,.

In those situations where streaming and class teaching
are no longer the norm there are a number of possible
strategies (3) for organising learning. In Britain there
has gradually evolved a preference for individualised
teaching, sometimes using special topic groups, rather
than the alternative practised in some other European
countries, such as the USSR, where children in mixed
ability groupings are still class taught. The seal of
approval was given to these trends by the Plowden Committee
Report (1967) which although endorsing the thinking of
earlier reports and writings went much further in
suggesting methods of translating these theories into
practice.

The main direction in which the Committee wished to move
primary teachers can be seen from their argument that "there
has always been too much class instruction and we believe
that there is still too much". Given also their support for
the theories of Jean Piaget it is logical that they should
also argue that individualisation was the key to effective
learning and hence to effective teaching. The problem,
however, as the Committee realised, was that with classes of
over 30 pupils (4) individuals would average only six minute
contact with their teacher per day. Teachers were therefore
advised to teach together "small groups of children who are
roughly at the same stage" although they were cautioned that

such groups should not become stable or be based on ability
alone. Later the Committee stated that one of the strongest
arguments in favour of groups was that it not only enabled
children "to help one another" but also to improve themselves
in that "they make their meaning clearer to themselves by
having to explain it to others and gain some opportunity to
teach as well as learn" (p.757). They also singled out for
special attention several types of pupil whom it was claimed
should particularly benefit from group work. Timid children
needed to hear others put questions they were unable to frame
for themselves while apathetic pupils might be infected by
the enthusiasm of the group and the more able children
benefit from being caught up "in the thrust and counter
thrust of conversation in a small group of children similar
to themselves".

       Clearly, a teacher's role in organising these learning
activities is a highly complex one but the Committee also
indicated a clear preference for an "enquiry" approach to
teaching with the emphasis on questioning and self discovery.
Thus the stereotype of a typical Plowden classroom would be
one where the children are highly active, engage in
exploration and discovery for themselves, where questioning
is of a high cognitive level concerned to identify and solve
problems, where groups are formed and reformed and where
within these groups pupils sometimes act as teachers for
other children with learning difficulties. The teacher is
also continually active moving around the classroom,
consulting, guiding and stimulating either individual or
groups of children in their tasks. Given that teachers
are but human it is likely that, even in classrooms where
this approach has been adopted, the patterns of behaviour
will only approximate to this model. With this in mind a
number of issues and possible areas of concern suggest
themselves:

   i.   How far have these informal (?) classrooms
         altered the traditional patterns of class
         organisation and the manner of structuring
         the curriculum?

   ii.   In these classrooms how much individual
         attention does each pupil get in practice
         and how is it distributed between "advanced"
         and "backward" children, given Plowden's
         advice to compensate for pupils with
         difficulties?

   iii. What is the quality of this attention and
         how far does it encourage pupils to discover,
         explore and problem solve?

iv.   What is the nature of the exchanges taking
      place between pupils within small groups?
      How are these groups formed and are they
      flexible?

v.   Is there any evidence to suggest that pupils
      taught by these informal methods reach the
      same level of achievement as pupils taught
      by traditional class teaching?

The remainder of this paper examines these questions
in the light of our own and other research which has been
carried out in Britain since the publication of the Plowden
Report.

1.   Background to recent research in the primary school

The research on which the following descriptions are
based has as its main objective the study of pupil and
teacher behaviour within the classroom. The chief research
technique has been that of interaction analysis (6) developed
in the United States of America by the Child Development
Movement in the 1920s. At the latest count there are over
200 observation systems in operation there, the best known
being FIAC, the Flanders Interaction Analysis Category
system, (Flanders 1960). Nearly all of these systems are
however totally unsuitable for British primary classrooms
where there is considerable teacher mobility so that
researchers here have been forced to develop their own
(Galton 1978).

The ORACLE project uses a Pupil Record (Boydell 1975)
and a Teacher Record (Boydell 1974), both developed at
Leicester in earlier studies. For the Pupil Record eight
"target" children were selected at random from a stratified
ability sample, (two bright, two dull, and four average
pupils with equal numbers of boys and girls in each group).
Observers recorded a pupil's behaviour at 25 second
intervals for 10 signals before switching onto the next
target. Teachers were observed in a similar manner but
for double the number of signals. Six lots of observations
were made on each pupil during each of the three terms in a
school year and some pupils are observed over three years.
Additional information was also collected about timetables,
class organisation and grouping arrangements during each
visit.

3.   Differences in organisation and curriculum structure
in the sample primary schools

The three areas of the country in which the data were
collected all have established systems of comprehensive
education at secondary level. They can therefore be expected
to have moved furthest towards the "Plowden" ideal. Table 1
shows the main organisational characteristics of these
classrooms.

In most classes the children are seated in groups with
an average of five to six children per table. Although only
about 22% of the teachers seat the children permanently in
groups by ability over a third use it for some part of their
teaching. These figures are a little lower than in other
areas of the country. Bassey (1977) found that about 30%
of this sample had permanent fixed groups, the majority
making reading and mathematics attainment a criteria for
their composition. The figures from Bennett's (1976) survey
in the North West of England showed that nearly a third of
the teachers streamed within the classroom. However, the
data does show that there has been a swing away from seating
by ability within classrooms since Barker Lunn carried out
her study. Bassey's data on infant classes show, as one
might expect, even less grouping by ability where only 15%
seat in this way.

Given that a majority have moved away from rigid
grouping patterns a more flexible pattern in the
organisation of curriculum might be expected. This is not
borne out, however, from table 2.

Over half the schools still have single subject teaching
and regular tests in mathematics while two-thirds of the
teachers carry out frequent spelling tests. The emphasis
given to assessment of spelling is reflected in the time
given to different areas of the curriculum. This data was
obtained from the Teacher Record by expressing the total
number of observations taking place within a curricular
area as the percentage of the total number of observations.
Table 3 shows that the pattern is still largely traditional.
The greatest amount of time is given to writing, even
greater if general studies (History, Geography, Topics) are
included. Nearly half the time given to mathematics is
given to basic number work and together writing and
mathematics take up to half the allocated time. Spoken
English which might have been expected to show an increase
receives little attention and perhaps surprisingly so does
reading in view of the difficulties currently experienced
at the secondary level. The over-all pattern is still,
however, fairly traditional and corresponds well with the
estimates obtained from other survey data.

4.   Distribution of attention within the classroom

Table 4 shows the percentage of teacher and pupil contact
taking place and expressed as percentage of total observation
time. The Teacher Record data shows what the teacher is
doing while the Pupil Record provides the view of the classroom
through an individual pupil's eye. It can be seen that there
is a sharp discrepancy between the two viewpoints. For a
teacher the predominant form of contact is through talking to
individuals, accounting for over 55% of his time. There is

relatively little class teaching and even less in groups
despite the Plowden recommendation. The pupil, however,
sees things very differently. He spends nearly all his
time alone without any contact with the teacher. Even
though the teacher spends only 15% of his time talking to
the whole class this is likely to account for the greatest
amount of contact for any individual pupil within it.
These figures are an average based on the total number of
observations with all pupils. Variations across classes
are quite large as is shown in table 5. Inside these
classes the study confirms the earlier findings, (Garner
and Bing 1973). Two types of pupil come in for the
greatest amount of attention. First there is the <u>highly</u>
<u>motivated able</u> child who initiates a large number of
interactions with the teacher mostly connected with
marking work. Second there is the <u>noisy disruptive pupil</u>,
usually <u>less able</u>, also is the subject of frequent teacher
attention. In classrooms where noise is kept to a minimum
the latter type of pupil will receive an even greater
amount of a teacher's time. Both types of pupils singled
out by Plowden, the <u>timid</u> and the <u>apathetic</u> do particularly
badly in this situation. Yet their level of attention to
task work is high. The highest average for any class is
over 71%, the lowest 43%. Some of these quiet pupils
achieve higher levels individually in spite of having
little contact with their teacher.

5.   Quality of task interactions

The Teacher Record enables an analysis of the
different types of teacher-pupil interaction so that their
quality may be measured. 45% of all observations are
concerned with teachers making statements, mostly concerned
with task supervision. Questions account for only 12% of
the total. Open questions, those which would be expected
to promote enquiry, occupy a very small proportion of this
total which is mostly devoted to exchanging factual
information and supervising work. The analysis of teacher
statements show a similar pattern. Statements which express
ideas account for 5.6% of the total. The largest proportion
of time is spent telling pupils what to do (28.1%), providing
feedback (21.4%) and giving facts (15.4%). Here again the
Plowden report's encouragement towards enquiry based
teaching appears not to have been taken up to any large
extent in these classes.

6.   Pupil interaction within groups

Another suggestion to come from Plowden was that some
compensation for the lack of individual attention could be
obtained by the children working together in small groups
where there would be opportunities for "teaching as well as
learning". Group teaching, as a deliberate strategy, appears
to be little used. Only 10% of all work observed was done in

co-operative groups. Informal groupings do exist since most children are at tables and within this setting pupil-pupil interaction can take place. This type of interaction, however, accounts for only 18.6% of the total amount. Of this figure only 28.3 is concerned with task work, about 5% of the total figure. The observation data shows that these pupil-pupil interactions are of very short duration, few extending over more than one 25 second time interval. As such they can have little to do with the "cut and thrust of counter argument" which Plowden suggested would stimulate pupils. Pupils generally interact while borrowing pencils, rubbers and by way of light relief from concentrating on their individual tasks. Whatever the arrangements for forming these groups, (whether ability, friendship or randomly) the groups inevitably contain both boys and girls. Yet the observation data shows that over 80% of all pupil-pupil interactions are with pupils of the same sex. It is clear that mixing the sexes, however desirable on other accounts, appears to be the factor in minimising conversation between children.

7.   Achievement of pupils in the primary school

The most controversial research finding in Britain of recent years has been that of Bennett (1976), who found that in his sample traditionally organised classrooms were up to half a year ahead in their level of achievement compared to pupils in informally organised ones. The study has been heavily criticised elsewhere (Gray and Satterley, 1976) on the grounds of its research design and the method of statistical analysis. Using the observational data and the other information collected by the observers while in the classroom, Bennett's study has been replicated in a different sample of schools across a wider age range. Although the traditional schools still do best in the ORACLE sample it is at the expense of "mixed" rather than the informal ones and the largest factor accounting for these differences is the experience of the teachers. It needs to be pointed out that these results refer only to the basic skills and, unlike earlier studies which actually singled out exceptional examples for comparison, both Bennett and the ORACLE samples are naturalistic ones. The observation data show that there are very few differences in behaviour between teachers with different forms of classroom organisation. No category on the Teacher Record discriminates between the different organisational strategies. Other factors beside attainment must also be considered. In a sub-sample of pupils who transferred at nine from first school to a middle school it has been shown that the anxiety levels of pupils in the "traditional" schools increased considerably six months before transfer.

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Conclusion

The data would suggest that, although the external forms of organisation have changed, little has altered inside the classroom apart from replacing desks by tables. Pupils obtain very little individual attention yet manage to maintain a high level of involvement in their work. It is all too easy to criticise the teachers although the data indicates that they are interacting continually with the pupils and it is the class size more than any other factor which prevents reasonable levels of contact with individuals. Neither do the results, taken as a whole, suggest that a return to streaming and class teaching would provide a satisfactory alternative. One answer would appear to be a greater involvement in group activity as Plowden originally suggested. Group activity is almost non-existent in junior school classrooms in Britain. Although most of the data reported here refer to junior classes that obtained in earlier small-scale studies of infants suggests similar patterns (Garner 1972: Resnick 1972). Researchers seemed to have failed to provide the teacher with any alternative means of organising groups effectively other than by attainment or friendship choice. Those responsible for training teachers seem to spend little time in teaching their students how to evaluate the quality of the pupil-pupil interactions taking place or even how to increase the number above the dismally low proportion at present occurring. It is too early to write off the new approaches to primary teaching in Britain. It is not that they have failed but rather that they have never yet been tried.

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Notes

(1) The term primary was originally attached to all
     schooling from the age of 5 to 11 when under the terms
     of the 1944 Education Act all pupils transferred to
     secondary level. Most of the schools were divided
     into infant (5-7) and junior (7-11) although there is
     now an increasing tendency to merge the two departments
     into one first school under a single head. In 1964,
     however, a further act made it possible to establish
     middle schools covering the 9-13 age range. In 1967
     the Plowden Committee recommended that primary
     education should be organised in two stages, (first
     schools from 5-8 and middle school from 8-12) in
     effect adding an extra year before transfer to the
     secondary stage. All three options can be found in
     different local authority areas.

(2) ORACLE (Observational Research and Classroom Learning
     Evaluation) is a five-year programme of research,
     sponsored by the Social Science Research Council and
     jointly directed by Professor Brian Simon and
     Maurice Galton at the School of Education, University
     of Leicester. It is mainly a process-product study
     in which a variety of teacher and pupil behaviours
     are systematically observed and then related to a
     wide range of learning outcomes, in the context of
     different classroom organisation.

     Sixty classrooms in three local authority areas are
     being studied covering the different types of school
     from "first" to "middle" with an age range of 8+ to
     13+. Detailed case studies of some of these children
     are then continued after they have transferred to the
     next stage of schooling. Further details can be
     obtained from the Secretary, ORACLE, School of
     Education, 21 University Road, Leicester LE1 7RF,
     England.

(3) Researchers using systematic observation make an
     important distinction between teaching strategies and
     teaching tactics. Strategies are of three kinds,
     organisational, covering grouping and seating
     arrangements, curricula, dealing with timetables and
     the selection of content within a subject and teaching
     to do with the general method of presentation, (didactic
     or enquiry). Tactics are to do with the minute by minute
     behaviours by which strategies are implemented.

(4) The latest Department of Education and Science statistics
     state that 41% of primary classes are either this size or
     even larger.

(5)   The terms "informal" and "formal" are used to denote
      different teaching strategies. Formal classes are
      said to use ability groups, single subject timetables
      and favour a didactic approach whereas informal ones
      do not select by ability, have integrated subject
      teaching and operate enquiry methods. Similar
      distinctions are made when referring to traditional
      and progressive classes although, as this paper shows,
      these differences are not so great in practice.

(6)   Interaction Analysis or classroom observation involves
      recording both verbal and non verbal behaviour
      systematically as it happens in the classroom. An
      observer records events in carefully defined categories
      at regular intervals and then sums these category totals
      to give an estimate of the time spent by teachers and
      pupils on various activities.

Table 1

Main organisational characteristics of 58 classrooms in ORACLE study (smallest size 20; largest 38)

	YES	NO
Pupils seated in groups	54	4
Classes vertically grouped (more than one year group)	15	43
Team teaching	10	48
Pupils seated by ability	12	45
Pupils quiet while working	36	22
Pupils free to move without permission	28	30
Pupils get regular homework	3	55

Table 2

Organisation and structure of the curriculum

	YES	NO
Single subject teaching	34	24
Regular mathematics tests	33	25
Regular spelling tests	41	17

Table 3

Percentage of total observation related to each
subject area

Number work	13.7
Other mathematics	14.8
Reading	6.8
Writing	22.6
Spoken English	2.8
Art/craft	8.8
General Studies	16.0
Other (Television, Stories etc)	13.5

Table 4

Percentage distribution of teachers' and pupil's time

	Teacher	Pupil
Individual attention	55.8	2.2
Group attention	7.5	1.5
Class attention	15.1	11.8
Not interacting	21.6	84.5

Table 5

Distribution of teacher-pupil interaction
(class averages, highest = 44%; lowest 6%)

Percentage	Below 10%	10-19	20-29	30%+
No. classes	4	9	31	16

Table 6

Variation in teachers questioning (as percentage
of total questions)

Questions of fact	28.9
Closed questions	18.2
Open questions	5.0
Questions supervising tasks	32.2
Questions dealing with routine	14.9

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